John Fredlund

DP-45 - Att. 4

NNSA/DP
Office of Technical Support

NFPA 780 Standard for the Installation of Lightning Protection Systems

- ! Technical basis questioned.
- ! NFPA requested substantiation (from government users) supporting continuation.
- ! Ad hoc users group provided report detailing theoretical & empirical evidence that NFPA 780 protection works.

Draft DOE Lightning Protection Standard

- ! Guidance for determining the type of protection to provide.
- ! High-level requirements for three different types of protection.
- ! Cites NFPA 780 & IEC 61024 for detailed requirements for "Franklin" systems.

Lightning Protection Systems Differing Objectives

Franklin system - Protect the structure.

Faraday cages - Protect the contents.

Lightning Warning Systems - Allow time to protect people or processes that are not adequately protected.

DOE needs to discriminate among these three & document our best practices for each.